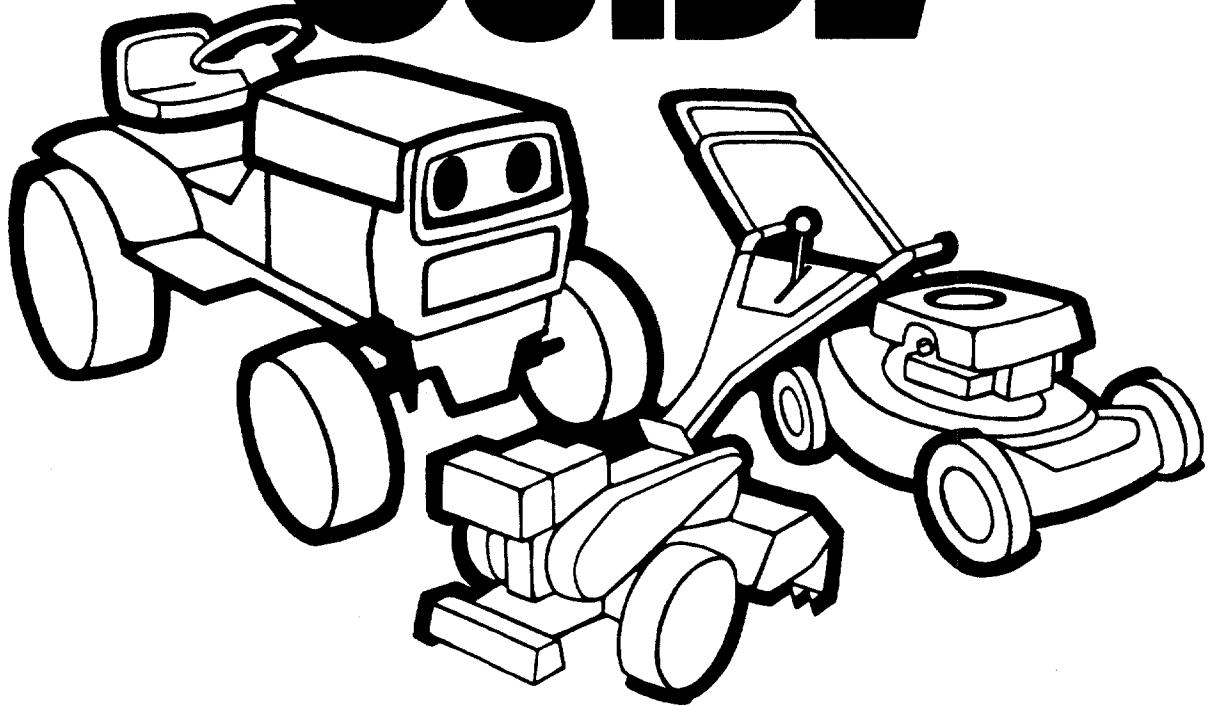


# OWNER'S GUIDE



**28" TILLER  
ATTACHMENT**

**Model Numbers**  
**190-756-000**  
**190756**

**IMPORTANT: Read Safety Rules and Instructions Carefully**

# IMPORTANT

## SAFE OPERATION PRACTICES



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. WHEN YOU SEE THIS SYMBOL— HEED ITS WARNING.



**DANGER:** This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

### I. GENERAL OPERATION

1. Read, understand, and follow all instructions in the manual before attempting to attach and operate your tiller. Keep this manual in a safe place for future reference and for ordering replacement parts.
2. Only allow responsible adults familiar with both the tiller and tractor instructions to operate the machine. Know controls and how to stop the machine quickly.
3. Do not put hands or feet under or near rotating parts. Keep clear of tiller tines at all times.
4. Clear the area of objects such as rocks, toys, wire, etc. which could become caught in the tiller tines. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects.
5. Be sure the area is clear of other people and pets before tilling. Stop machine if anyone enters the area.
6. Never carry passengers. Only the operator should ride on the unit and only ride in the seat.
7. Disengage tiller before shifting into reverse and backing up. Always look down and behind before and while backing.
8. Slow down before turning. Operate the tractor smoothly. Avoid erratic operation and excessive speed.
9. Never leave a running machine unattended. Always disengage attachment, place transmission in neutral, set park brake, stop engine and remove key before dismounting.
  - A. Raise and disengage tiller before making sharp turns. Leaving tiller lowered and engage may adversely offset steering/control of machine.
10. Disengage tiller when not tilling.
11. Stop engine and wait until tiller comes to a complete stop before making any repairs, adjusting or removing any rocks or debris.
12. Till only in daylight or good artificial light.
13. Do not operate the machine while under the influence of alcohol or drugs.
14. Watch for traffic when operating near or crossing roadways.
15. Use extra care when loading or unloading the machine into a trailer or truck. This unit should not be driven up or down a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually to load or unload properly.
16. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
17. Check overhead clearance carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
18. Disengage all attachment clutches, thoroughly depress the brake pedal, and shift into neutral before attempting to start engine.

### II. SLOPE OPERATION

Slopes are a major factor related to loss of control and tip-over accidents which can result in severe injury or death. **All** slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not till on it.

#### DO:

- Till up and down slopes, not across.  
Remove obstacles such as rocks, limbs, etc.  
Watch for holes, ruts, bumps and objects hidden under the soil (e.g. rocks). Uneven terrain could overturn the machine.  
Use slow speed. Choose a low enough gear so that you will not have to stop or shift while on the slope. Always keep tractor in gear when going down slopes to take advantage of engine braking action.  
Keep all movement on the slopes **slow and gradual**. Do not make sudden changes in speed or direction. Rapid engagement or braking could cause the front of the machine to lift.  
Avoid starting or stopping on a slope. If tires lose traction, disengage tiller and proceed slowly **straight** down the slope.  
For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

#### DO NOT:

- Do not** turn on slopes unless necessary; then, turn slowly and gradually downhill, if possible.  
**Do not** operate unit near drop-offs, ditches or embankments. A wheel over the edge or an edge caving in could cause sudden overturn.  
**Do not** operate tractor on wet grass. Reduced traction could cause sliding.  
**Do not** try to stabilize the machine by putting your foot on the ground.

### III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the tilling activity. **Never** assume that children will remain where you last saw them.

1. Keep children out of the tilling area and in watchful care of an adult other than the operator.
2. Be alert and turn machine off if children enter the area.
3. Before and when backing, look behind and **down** for small children.
4. Never carry children. They may fall off and be seriously injured or interfere with the safe machine operation.
5. Never allow children to operate the machine.
6. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure vision.

### IV. SERVICE

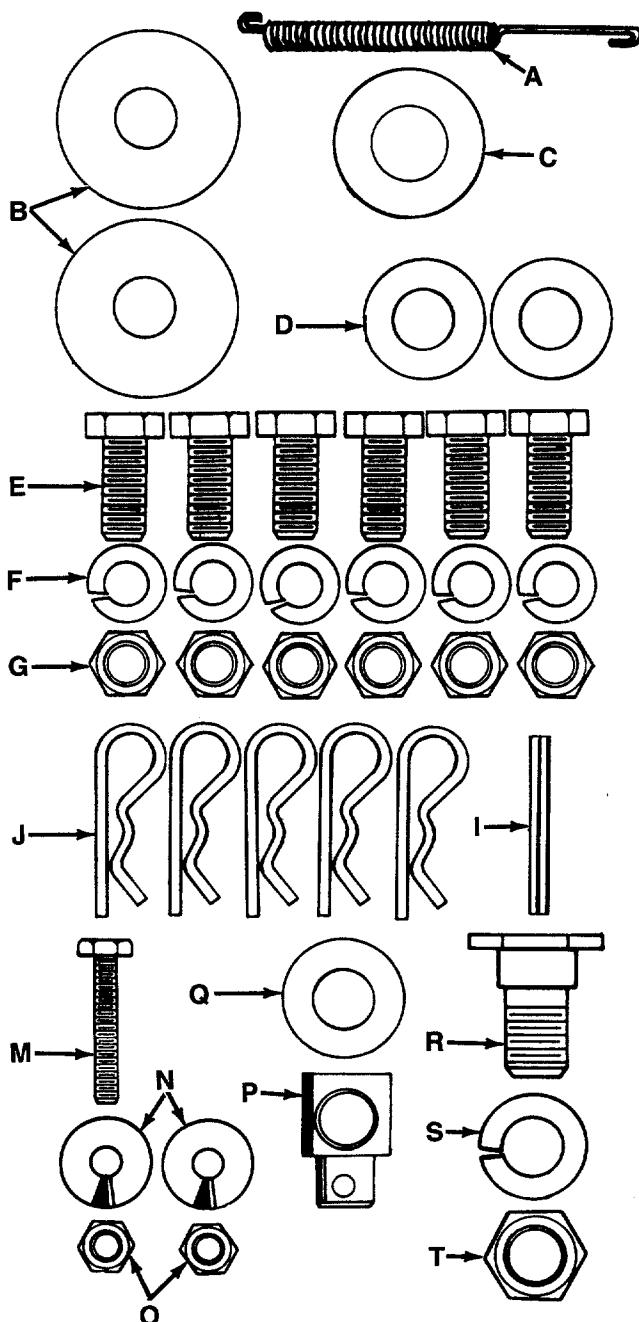
1. Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
  - a. Use only an approved container.
  - b. Never remove gas cap or add fuel with the engine running. Allow engine to cool at least two minutes before refueling.  
Do not smoke.
  - c. Never refuel the machine indoors.
  - d. Never store the machine or fuel container inside where there is an open flame, or spark, such as a water heater, space heater, clothes dryer and the like.
2. Never run a machine inside a closed area.
3. Check frequently and keep nuts and bolts tight and keep equipment in safe working condition.

- Never tamper with safety devices. Check their proper operation regularly. Use all guards as instructed in this manual.
- To reduce fire hazard, keep machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment for damage if you strike an object (e.g. rock). Repair, if necessary, before re-starting and operating the machine.
- Never make adjustments or repairs with the engine running.
- Check brake operation frequently. Adjust and service as required.
- Muffler, engine, and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.
- Do not change the engine governor settings or overspeed the engine.



**DANGER:** Your unit was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

## ASSEMBLY



### Contents of Hardware Pack (See figure 1):

- A (1) Extension Spring
- B (2) Flat Washers 1/2" I.D. x 1-1/2" O.D.
- C (1) Flat Washer 5/8" I.D. x 1-1/4" O.D.
- D (2) Flat Washers 1/2" I.D. x 1" O.D.
- E (6) Hex Bolts 3/8-24 x 7/8" Long
- F (6) Lock Washers 3/8" I.D.
- G (6) Hex Nuts 3/8-24 Thread
- H (1) Spiral Pin
- J (5) Hairpin Clips 1/2" Diameter
- K (4) Extension Springs (Not Shown)
- M (1) Hex Bolt 1/4-20 x 1.25" Long\*
- N (2) Cupped Washers 1/4" I.D.\*
- O (2) Hex Nuts 1/4-20 Thread\*
- P (1) Ferrule
- Q (1) Spacer 1/2" I.D. x 1" O.D. x 1/2" Long
- R (1) Shoulder Bolt
- S (1) Lock Washer 1/2" I.D.
- T (1) Hex Jam Nut 1/2-20 Thd.
- U (1) Flat Washer 1/2" I.D. x 1-1/4" O.D.
- V (2) Split Spacers .505" I.D. x .57" O.D.
- W (1) Hairpin Clip 3/8" Dia.
- X (2) Flat Washers 3/8" I.D. x 5/8" O.D.
- Y (2) Hex Bolts 5/16-18 x 3-1/4" Long

\*Not used on all models

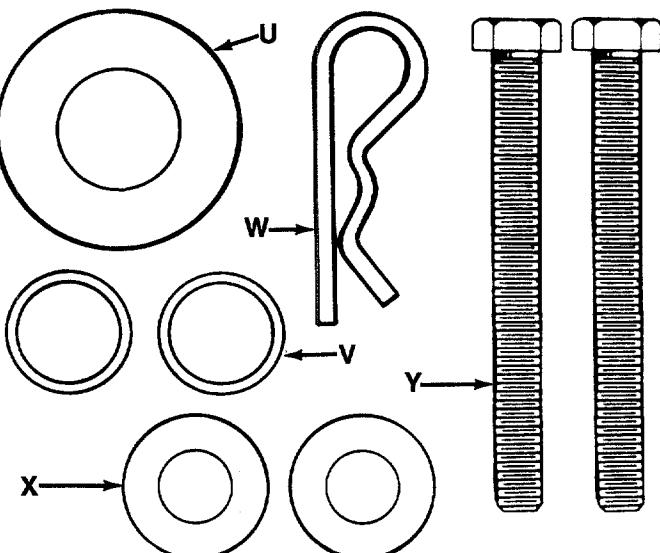
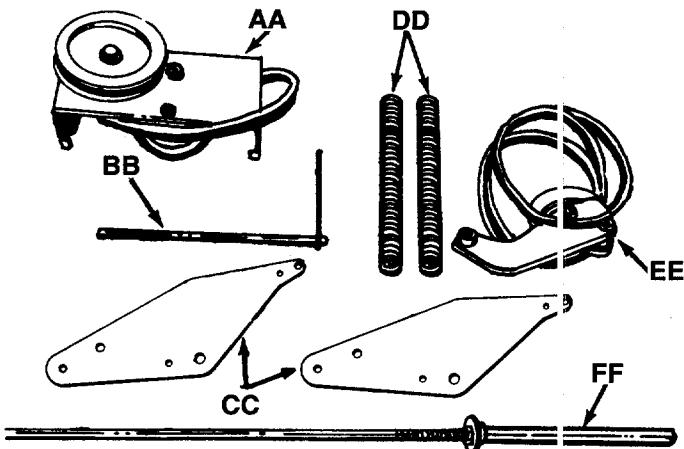
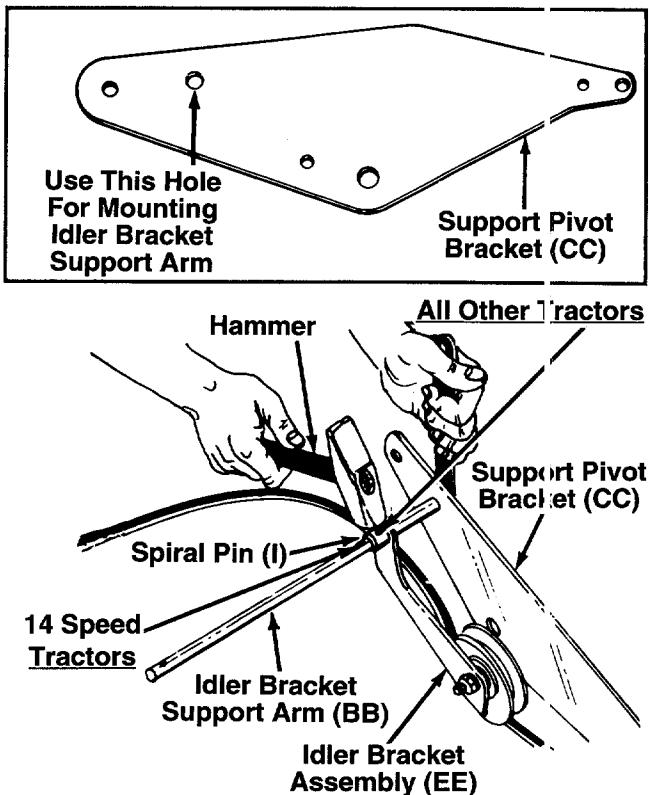


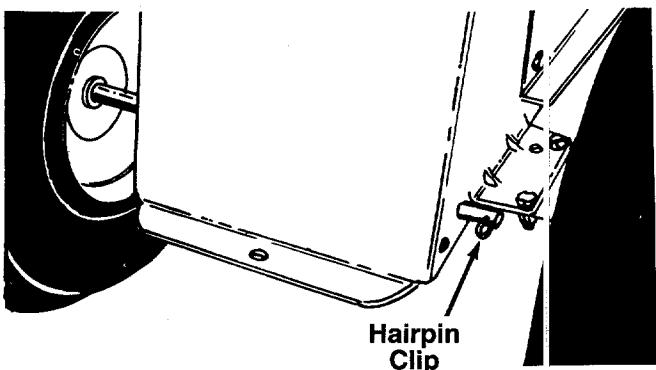
FIGURE 1.



**FIGURE 2.**



**FIGURE 3.**



**FIGURE 4.**

← **Loose Parts in Carton (See figure 2):**

- AA (1) Carriage Bracket Assembly
- BB (1) Idler Bracket Support Arm Assembly
- CC (2) Support Pivot Brackets
- DD (2) Compression Springs
- EE (1) Idler Bracket Assembly
- FF (1) Lift Rod Assembly

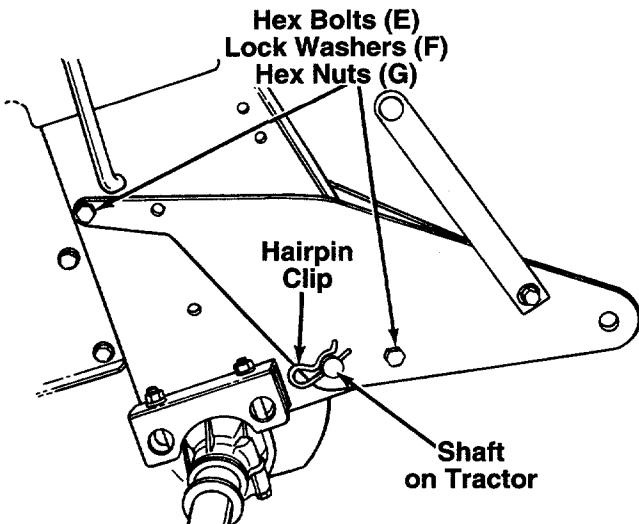
**NOTE: Right and left hand side of the unit is determined from the driver's seat, facing forward.**

1. Remove the cutting deck from your tractor if one is attached.
2. Preassemble the idler bracket support arm (BB) to one support pivot bracket (CC) and idler bracket assembly (EE) as follows.
  - A. Place the idler bracket support arm down through the hole in support pivot bracket shown in figure 3. Then slide the idler bracket assembly over the idler bracket support arm.
  - B. Secure the idler bracket assembly to the idler bracket support arm using spiral pin (I), using the hole in the idler bracket support arm as follows. See figure 3.

**14 Speed Tractors:** Secure by placing spiral pin in the hole further away from the support pivot bracket.

**All Other Tractors:** Secure by placing spiral pin in the hole nearest the support pivot bracket.

3. Remove the two hairpin clips from the shaft on the rear of your tractor. See figure 4. These will be reassembled in steps 4 and 7.
4. Place the support pivot bracket (with idler bracket and support arm attached) in position on the rear left hand side of tractor. See figure 5. Place large hole in pivot bracket over shaft on tractor. Secure with one hairpin clip removed in step 3.
5. Remove the transmission cover for easier access when installing the support pivot brackets to the tractor frame.



**FIGURE 5.**

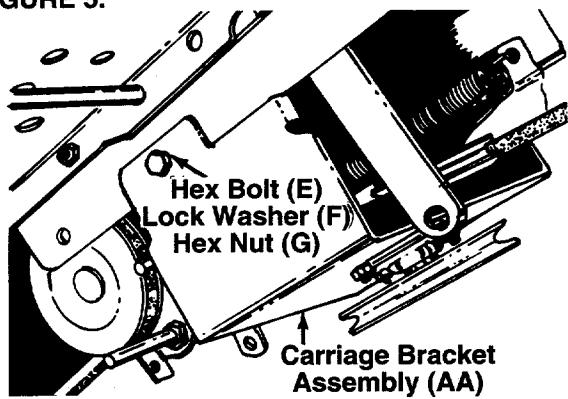
6. Align the holes in the support pivot bracket with the holes in the tractor frame. Secure the support pivot bracket to the tractor frame with hex bolts (E), lock washers (F) and hex nuts (G) as shown in figure 5.

← 7. Assemble the other support pivot bracket to the right hand side of tractor in the same manner, securing shaft on tractor with hairpin clip removed in step 3.

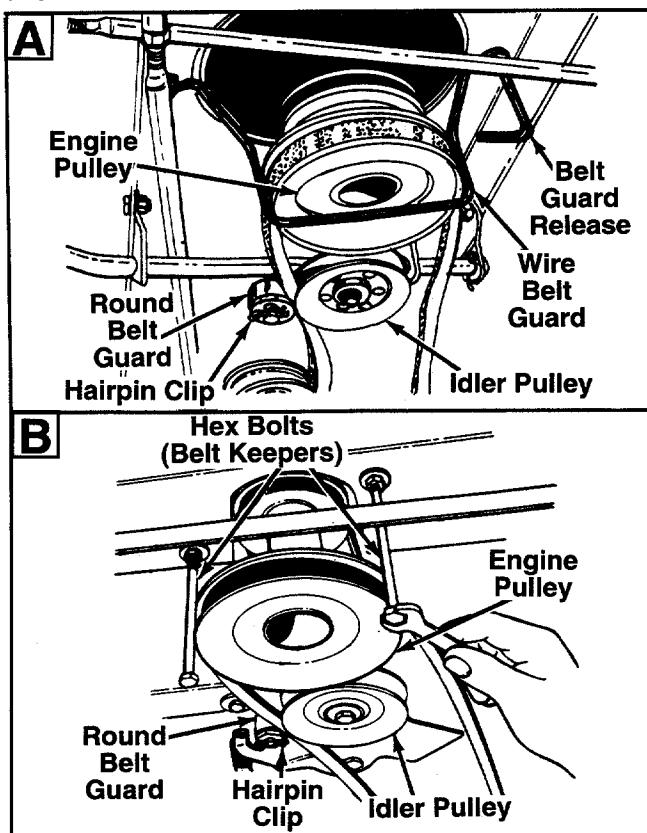
8. Tighten securely all four nuts and bolts which were used in assembly of pivot support brackets.

9. Secure end of idler bracket support arm assembly on the right side of tractor with one flat washer (D) and hairpin clip (J).

10. Place carriage bracket assembly (AA) in position beneath the running board support rod on the tractor so belt will attach to engine pulley. Secure each side of carriage bracket to frame with hex bolts (E), lock washers (F) and hex nuts (G). ← Tighten securely. See figure 6.



**FIGURE 6.**



**FIGURE 7.**

11. If so equipped, remove the round belt guard from the idler on tractor by removing the hairpin clip. ← See figure 7A or 7B.

12. Remove the engine pulley belt guard by either unscrewing the belt guard release and swinging the engine pulley belt guard out of the way (see figure 7A), or removing the two long hex bolts which act as belt keepers (see figure 7B).

13. Place the belt which is preassembled to the carriage bracket assembly around the idler pulley and engine pulley on the tractor.

14. Reassemble the round belt guard and hairpin clip. Reassemble the engine pulley belt guard(s).

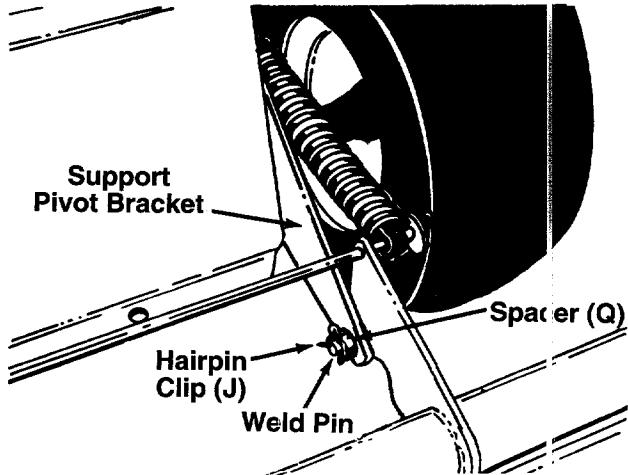


FIGURE 8.

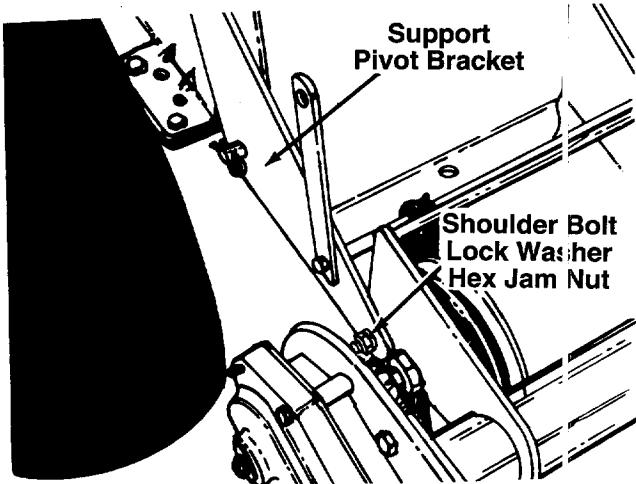


FIGURE 9.

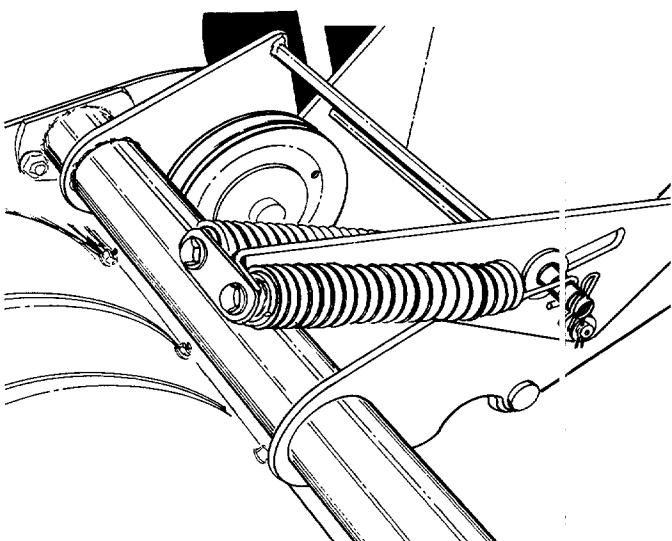


FIGURE 10.

15. Place the tiller in position behind the tractor.
16. There is a weld pin on the front of the tiller on the right hand side. Push the tiller forward, then to the left so the weld pin goes through the bottom hole in the right hand pivot support bracket. See figure 8.
17. Secure the weld pin using flat washer (D) and hairpin clip (J).

18. Secure the left hand side of tiller to the support pivot bracket using shoulder bolt, lock washer and hex jam nut provided. Head of the shoulder bolt must be to the inside of the tiller. See figure 9.
19. Thread the adjustment ferrule (P) onto the end of the lift rod assembly a few turns. Slide the ferrule and the lift rod assembly through the slot in the right hand tractor fender.

**NOTE:** *On models prior to 1984, it is necessary to extend the slot in the fender approximately 1-1/2" further down toward the running board. The slot should measure approximately 4-3/8".*

20. Attach the lift rod assembly to the rod which is part of the pivot bracket assembly as follows. See figure 10.
  - A. Place flat washer (U) over the rod on the pivot bracket assembly.
  - B. Slide the slot on the bracket (part of the lift rod assembly) over the rod (bracket must point upward).
  - C. Place one flat washer (B) over rod, then two spacers (V). Secure with hairpin clip (W).
  - D. Place one flat washer (X) over one hex bolt (Y). Hook one compression spring between the two spacers just assembled in step C. Insert the hex bolt (Y) through the bracket on the lift rod assembly and start it into the compression spring.
  - E. Start the other spring in the same manner, hooking it over the rod on the pivot bracket assembly (to the **inside** of the bracket). Now tighten both bolts (Y) securely.

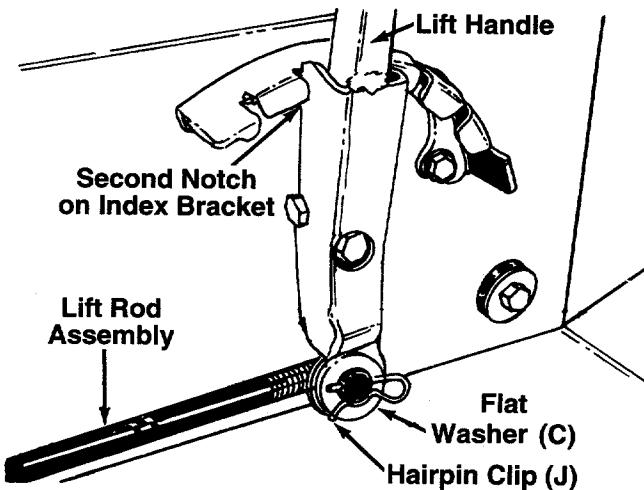
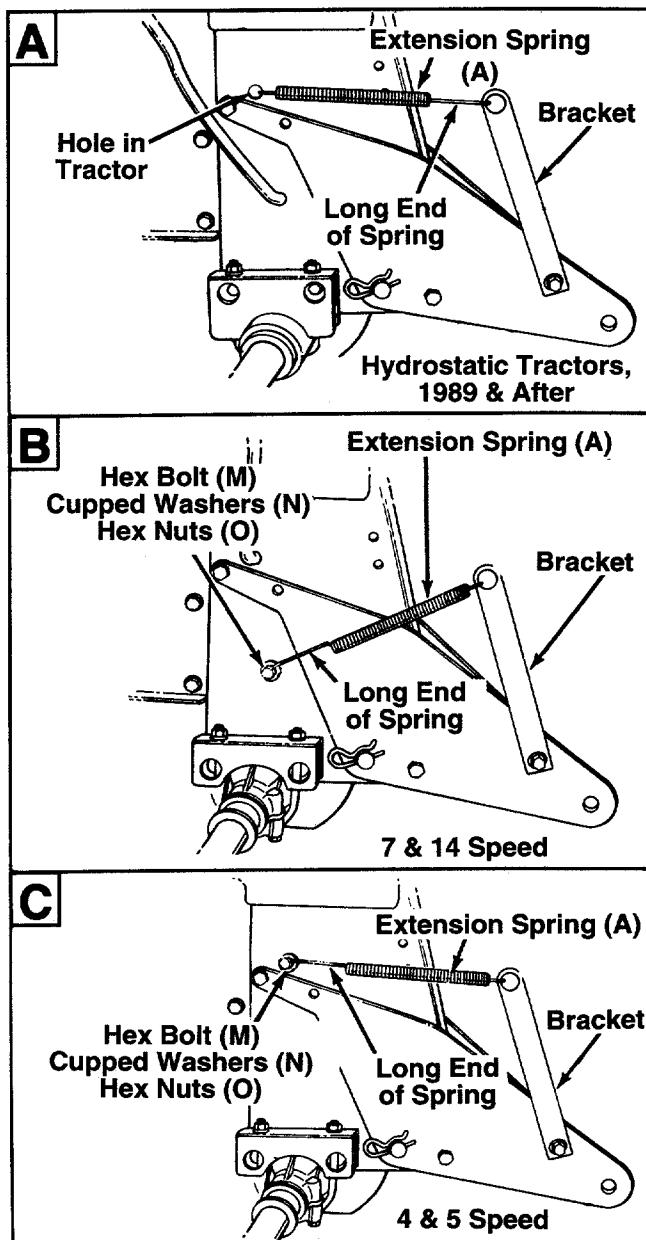


FIGURE 11.

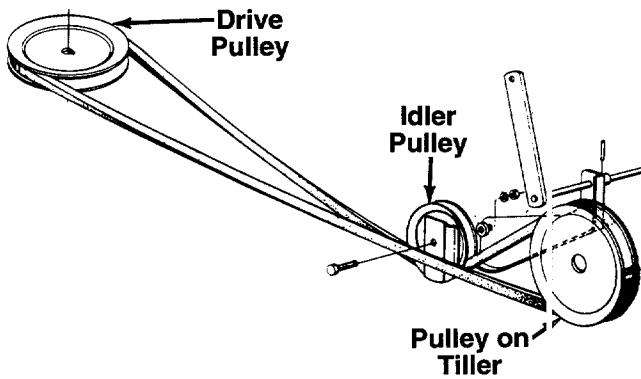


21. Move the lift lever on the tractor to the second notch on the index bracket as shown in figure 11.
22. Place a board under the tines. Thread the ferrule onto or off of the lift rod until it lines up with the bottom hole in the lift handle. Secure ferrule to lift handle using flat washer (C) and hairpin clip (J). See figure 11.

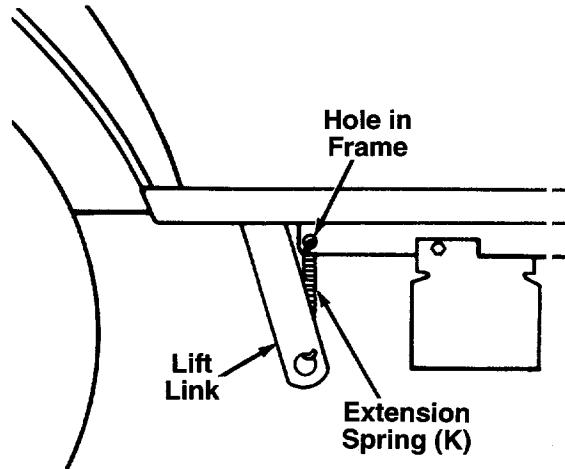
**NOTE:** Refer to operation section for additional adjustment information.

23. **Hydrostatic tractors, 1989 production and after:** Attach spring (A) by hooking long end of spring into hole on end of bracket attached to pivot bracket support. Hook short end of spring into hole in tractor frame as shown in figure 12A.
24. All other units: Attach spring (A) as follows.
  - A. Thread one hex nut (O) all the way onto hex bolt (M). Place one cupped washer (N) on hex bolt, with the cupped side of washer against the hex nut.
  - B. Place hex bolt into hole in tractor frame as shown in figure 12B or 12C according to the type of tractor (four, five or 14 speed). Secure using cupped washer (N) and hex nut (O), with the crowned side of washer against the inside of the frame.
  - C. Hook the long end of spring over hex bolt. Hook short end of spring into hole on end of bracket attached to pivot bracket support.

FIGURE 12.



**FIGURE 13.**



**FIGURE 14.**

25. Assemble the belt as follows (refer to figure 13).

- Belt is attached to the idler pulley assembly. Back of the belt (flat side) goes against the idler pulley.
- Slip belt up and over pulley on tiller ("V" side of belt goes against the pulley).
- Twist the belt 90° to the right as shown in figure 13. Slip the belt around the drive pulley on the tractor.

**NOTE:** *The tines on the tiller are designed to rotate in the opposite direction of the wheels on the tractor. If they rotate in same direction as the wheels, the belt is twisted in the wrong direction. Unhook the belt from the drive pulley and twist in the opposite direction.*

- If there are holes provided in the tractor frame, hook the lift links up out of the way using the four extension springs (K). See figure 14.

## OPERATION

### CONTROLS

#### Lift Lever

The lift lever which is used to raise and lower the tiller and provide tilling depth adjustment is located on the right hand side of the tractor. To raise the tiller, pull back on the lift lever. To transport the tiller, place lift lever in the highest position.

#### P.T.O. Lever

The P.T.O. lever is located on the right hand side of the tractor. The tines are engaged by lifting the P.T.O. lever to the "Engaged" position. Lower the P.T.O. lever to the "Disengaged" position to stop the tine rotation.

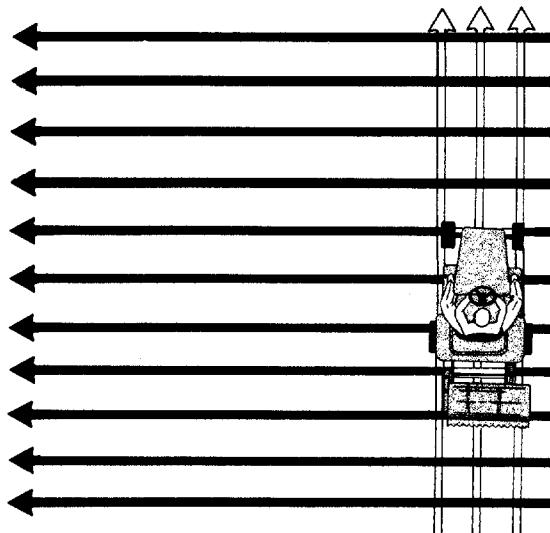
### HOW TO USE YOUR TILLER

When tilling sod or soil which has not been tilled before, select a shallow tilling depth with the lift lever, and use a slow ground speed. For further depth, lower the lift lever and make several more passes over the area, each time tilling at right angles to the previous pass. See figure 15.

When tilling loose soil, use a higher ground speed.

Use the highest ground speed for pulverizing the soil or for transporting the tiller.

For best results, always till the ground at least twice (lengthwise, then widthwise) as shown in figure 15.



**FIGURE 15.**

## **ADJUSTMENT FERRULE**

The adjustment ferrule on the lift rod assembly provides additional tilling depth adjustment. Recommended adjustment is as follows.

1. Place lift lever in second position.
2. Place a board under the tines and adjust the ferrule to fit into lift lever.

This adjustment provides approximately 3" ground clearance with the lift lever in the highest position (for transport).

Move the ferrule further back on the rod to reduce the tilling depth.

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## **MAINTENANCE**

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### **CHAIN CASE LUBRICATION**

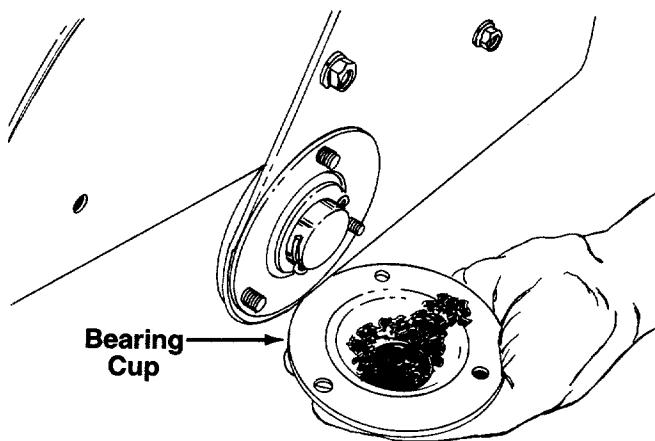
The chain case is sealed at the factory and does not require checking or changing. If the chain case is disassembled for repair, replace the grease with 20 ounces of plastilube "O" grade grease (part number 737-0133, 14 ounce container).

### **BEARING CUP**

At least once a season, remove the bearing cup on the right hand side of tiller housing. See figure 16. Clean and refill with 2 ounces of plastilube "O" grade grease (part number 737-0133).

### **LIMITED TORQUE PULLEY**

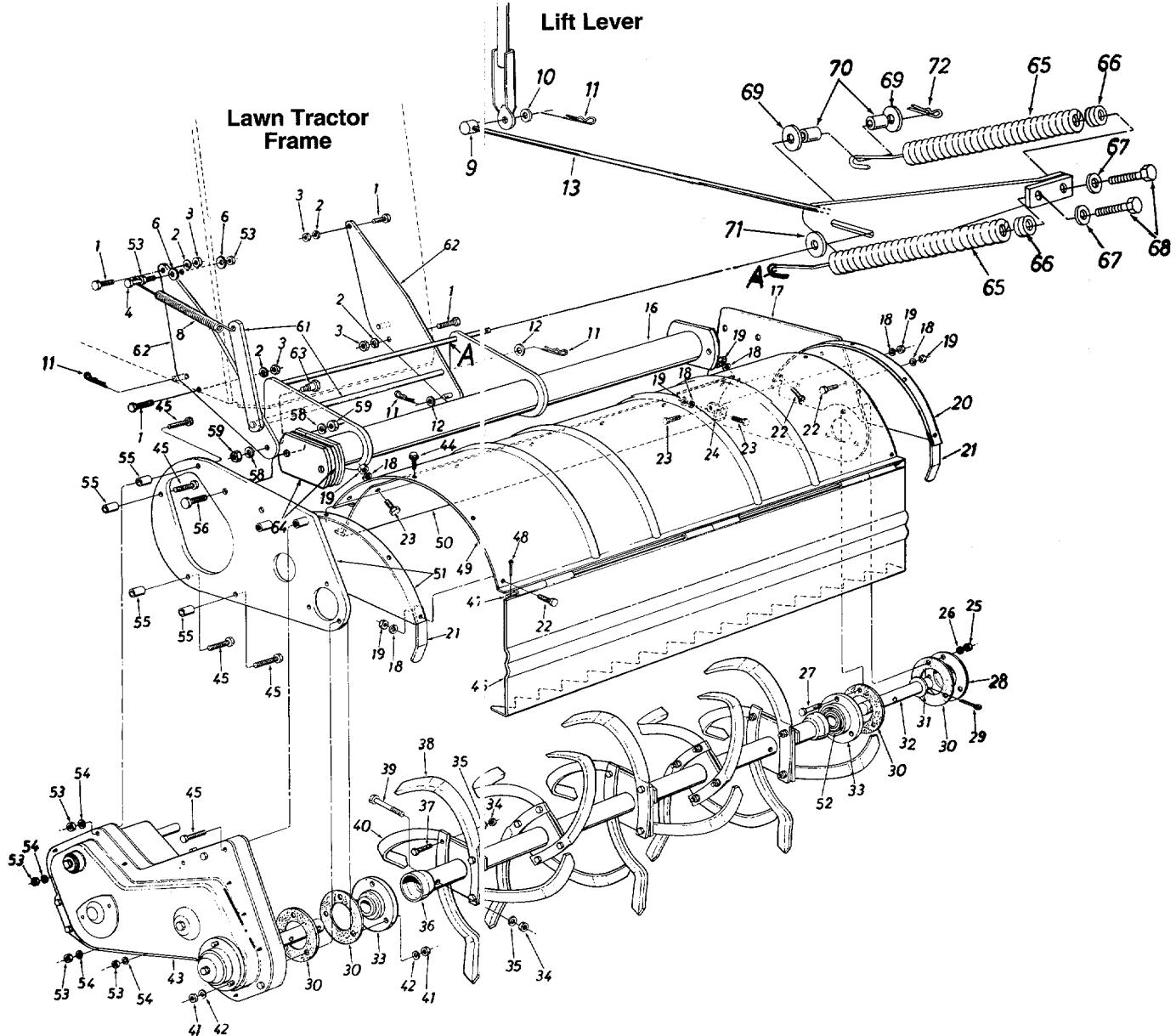
If the limited torque clutch is disassembled for any reason, reassemble as shown on page 13. Using a torque wrench, tighten the first hex jam nut to 350 in. lbs., then lock it in place with the second hex jam nut.



**FIGURE 16.**

# Model 756

## 190756



**NOTE**

Specifications subject to change without notice or obligation.

# Model 756

## 190756

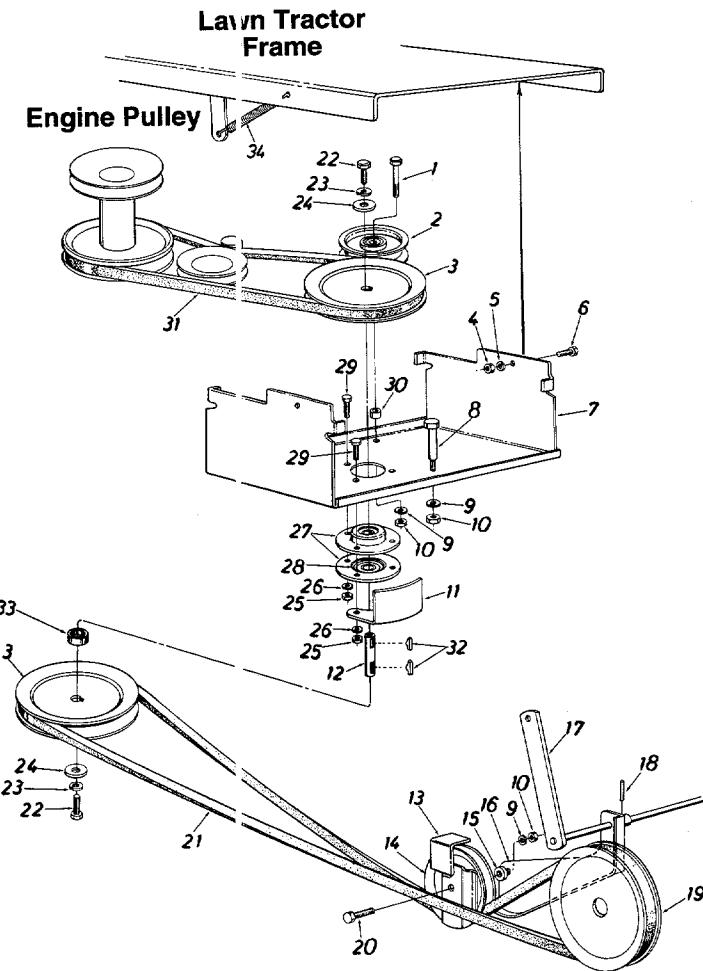
### PARTS LIST FOR MODEL 756 28" TILLER ATTACHMENT

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-0696		Hex Bolt 3/8-24 x .88" Lg.*	36	784-0107		Tine Adapter Ass'y.
2	736-0217		L-Wash. 3/8" I.D.—H.D.	37	710-0459		Hex Bolt 3/8-24 x 1.5" Lg.*
3	712-0241		Hex Nut 3/8-24 Thd.*	38	742-0243		Tine 14" x 5/16"
4	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.*	39	710-0331		Hex Bolt 3/8-24 x 2.25" Lg.*
6	736-0270		Bell-Wash. 1/4" I.D.*	40	742-0244		Tine 14" x 5/16"
8	732-0185		Ext. Spring 7.75" Lg.	43	884-0061-5		Chain Case Ass'y. Comp.
9	711-0770		Adjustment Ferrule 1/2-13 Thd.	44	710-0604		Hex TT-Tap Scr. 5/16-18 x .62" Lg.
10	736-0187		Fl-Wash. .64" I.D. x 1.24" O.D. x .06"	45	710-0564		Hex Bolt 1/4-20 x 2.75" Lg.*
11	714-0145		Intern. Cotter Pin 1/2" Dia.	46	784-0076		Hinge Flap Ass'y.
12	736-0272		Fl-Wash. .51" I.D. x 1.0" O.D. x .06"	47	747-0479		Tiller Flap Rod 29.7" Lg.
13	689-0000		Lift Bracket Ass'y.	48	714-0115		Cotter Pin 1/8" Dia. x 1" Lg.*
14	732-0460		Comp. Spring 1.5" O.D. x 15" Lg.	49	784-0074		Tine Shield Ass'y. 30" Lg.
15	736-0208		Fl-Wash. .51" I.D. x 1.5" O.D. x .075"	50	784-0060		Reinforcement Brkt.—Tine Shield
16	784-0279		Pivot Bracket Assembly	51	784-0055		Tiller Housing Plate Ass'y.
17	784-0056		Tiller Housing Plate—R.H.	52	721-0192		Oil Seal 1-1/4" Shaft
18	736-0119		L-Wash. 5/16" I.D.*	53	712-0287		Hex Nut 1/4-20 Thd.*
19	712-0123		Hex Nut 5/16-24 Thd.*	54	736-0329		L-Wash. 1/4" I.D.*
20	784-0058		End Cover Tine Shield—R.H.	55	750-0599		Spacer .28" I.D. x .62" O.D. x .9" Lg.
21	784-0069		Tine Shield Hinge Flap Support	56	710-3177		Hex Bolt 1/2-20 x 1.5" Lg.*
22	710-0157		Hex Bolt 5/16-24 x .75" Lg.*	58	736-0921		L-Wash. 1/2" I.D.*
23	710-0237		Hex Bolt 5/16-24 x .62" Lg.*	59	712-0922		Hex Nut 1/2-20 Thd.*
24	12541		Chute Pivot Bracket	61	784-0073		Idler Brkt. Support Arm Ass'y.
25	712-0158		Hex L-Nut 5/16-18 Thd.	62	784-0064B		Pivot Brkt. Support
27	710-0376		Hex Bolt 5/16-18 x 1" Lg. (Grade 5)	63	738-0816		Shoulder Bolt
28	784-0068		Grease Housing Cup	64	784-0066		Support Plate
29	714-0470		Cotter Pin 1/8" Dia. x 1.25" Lg.*	65	732-0323		Helper Spring
30	721-0133		Gasket for Brg. Housing	66	711-0509		Spring Insert
31	736-0246		Fl-Wash. 1.25" I.D. x 2.0" O.D. x .06"	67	736-0275		Fl-Wash. .34" I.D. x .68" O.D.
32	738-0630		Tine Shaft 1.25" Dia. x 6.25" Lg.	68	710-1207		Hex Bolt 5/16-18 x 3.25" Lg.
33	741-0417		Bearing Housing w/Bearing	69	736-0208		Fl-Wash. .51" I.D. x 1.5" O.D.
				70	750-0881		Split Spacer .505" I.D. x .57" Lg.
				71	736-0100		Fl-Wash. .531" I.D. x 1.25" O.D.
				72	714-0145		Internal Cotter Pin 1/2" Dia.

\*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

# Model 756

## 190756



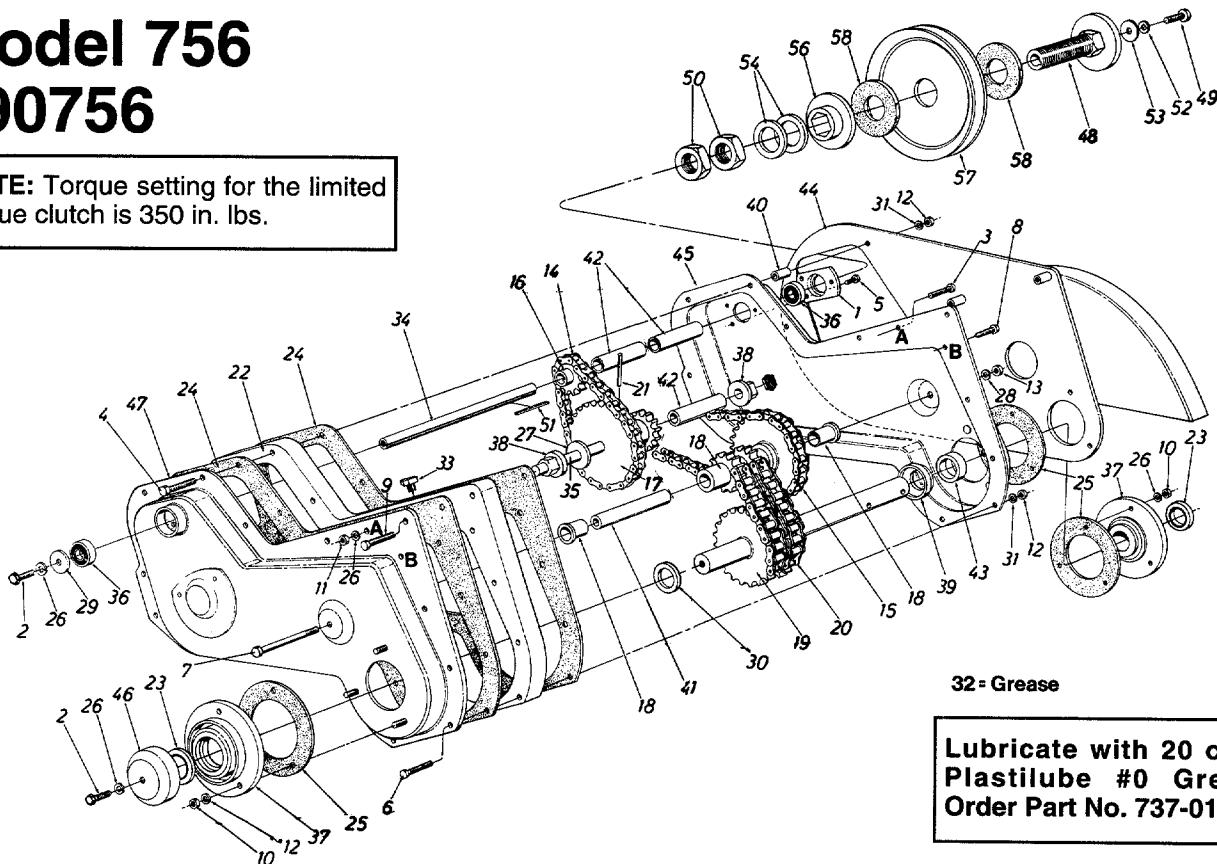
PARTS LIST FOR MODEL 756 28" TILLER ATTACHMENT

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-0427		Hex Bolt 3/8-16 x 2" Lg.*	19	756-0439		5/8" V-Pulley 1.50" I.D. x 6.5" O.D.
2	756-0405		FL-Idler w/Flanges 3-3/4" O.D.	20	710-0347		Hex Bolt 3/8-16 x 1.75" Lg.*
3	756-0438		5/8" "V"-Pulley .79" I.D. x .65" O.D.	21	754-0283A		"V"-Belt
4	712-0241		Hex Nut 3/8-24 Thd.*	22	710-0371		Hex Bolt 5/16-18 x .88" Lg. Spec.
5	736-0217		L-Wash. 3/8" I.D.	23	736-0119		L-Wash. 5/16" I.D.*
6	710-0696		Hex Bolt 3/8-24 x .88" -g.*	24	736-0231		Fl-Wash. .344" I.D. x 1.125"
7	784-0054A		Carriage Bracket	25	712-0267		Hex Nut 5/16-18 Thd.*
8	738-0533		Shoulder Bolt .498" Dia.	26	736-0119		L-Wash. 5/16" I.D.*
9	736-0169		L-Wash. 3/8" I.D.*	27	08253B		Bearing Housing 1.85" I.D.
10	712-0798		Hex Nut 3/8-16 Thd.*	28	741-0919		Ball Bearing 1.85" O.D.
11	05406		Belt Guard	29	710-0198		Hex Sems Bolt 5/16-18 x .75" Spacer
12	738-0789		Shaft .787" Dia. x 3.21" Lg.	30	750-0497		Belt
13	784-0070		Belt Separator Plate	31	754-0229		Hi-Pro Key 3/16" x 5/8"
14	756-0433		Fl-Idler w/Flanges 3.25"	32	714-0161		Spacer .66" I.D. x 1" O.D.
15	736-0235		Fl-Wash. .406" I.D. x 1.25"	33	750-0763		Extension Spring
16	784-0071		Idler Brkt. Ass'y.	34	732-0611		
17	784-0073		Idler Brkt. Support Ass'y.				
18	715-0105		Spring Pin Roll 3/16" Dia.				

# Model 756

## 190756

**NOTE:** Torque setting for the limited torque clutch is 350 in. lbs.







*For Replacement Parts, Contact:*  
**SERVICE DEPARTMENT • P.O. BOX 368022 • CLEVELAND, OHIO 44136-9722**